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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/743,399 | 12/23/2003 | Masayuki Kurihara | 018842.1287 | 7186 |

24735 7590 03/23/2005

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C/O INTELLECTUAL PROPERTY DEPARTMENT
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EXAMINER

LAZO, THOMAS E

| | |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

3745

DATE MAILED: 03/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/743,399 | KURIHARA, MASAYUKI | |
| | Examiner | Art Unit | |
| | Thomas E. Lazo | 3745 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>12/23/03</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-7, 9, and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Takenaka et al. (6,308,615). Takenaka et al. discloses a swash-plate compressor with a drive shaft to be rotated, a piston having a coupling portion and reciprocally movable by rotation of the swash plate, and a shoe slidably coupling the coupling portion to the swash plate, wherein the coupling portion has a spherical contact surface, the shoe has a spherical surface slidable along the contact surface, at least one of the contact surface and the spherical surface has an oxide film 82 retaining a number of self-lubricating particles, the self-lubricating particles impregnate the oxide film 82, the oxide film has a number of microscopic pores, the self-lubricating particles are deposited in the microscopic pores, the microscopic pores are regularly arranged, the oxide film is made of solid lubricant containing MoS₂ or PTFE as a main component. See Takenaka et al. col. 2, line 35 – col. 4, line 52 and col. 7, lines 18-46. Regarding claims 2, 4, 6, and 7, the processes of anode oxidation and electrolysis do not limit the end product of an impregnated oxide film. See Product by Process claims MPEP 2113.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 8 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takenaka et al., as applied to claim 1 above. Takenaka et al. discloses all of the claimed subject matter further including the oxide film having a thickness of 5 um or more. Takenaka et al. does not disclose the oxide film as having a surface hardness of 250 HV or more and being made of an organic iodine compound.

Since the applicant has not disclosed that having a surface hardness of 250 HV and an organic iodine compound oxide film solves any stated problem or is for any particular purpose above the fact that they are preferred material property and material to improve seizure resistance and it appears that the compressor of Takenaka et al. would perform equally well with an oxide film having a surface hardness of 250 HV or made of an organic iodine compound as claimed by applicant, it would have been an obvious matter of engineering expedience to further modify the compressor of Takenaka et al. by having an oxide film with a surface hardness of 250 HV or made of an organic iodine compound as claimed for the purposes of improving seizure resistance.

Art Unit: 3745

Prior Art

Prior art made of record but not relied upon is considered pertinent to Applicant's disclosure and consists of three patents.

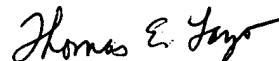
Sugioka et al. (6,752,065), Kato et al. (6,582,200), and Kato et al. (5,943,941) are cited to show the swash plate compressors with sliding layers.

Contact Information

Any inquiry concerning this communication or earlier communication from the examiner should be directed to Thomas Lazo whose telephone number is (571) 272-4818. The examiner can normally be reached on Monday-Friday from 8:00 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor Edward Look, can be reached on (571) 272-4820. The fax phone number for this Group is (703) 872-9306.

Any inquiry of a general nature or relating to status of this application or proceeding should be directed to the Patent Application Information Retrieval (PAIR) system. For more information about the PAIR system, see <http://pair-direct.uspto.gov>.



Thomas E. Lazo
Primary Examiner
Art Unit 3745

TEL
March 15, 2005